



**UNIVERSITI KUALA LUMPUR**  
**Malaysia France Institute**

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**FINAL EXAMINATION**  
**JANUARY 2010 SESSION**

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**SUBJECT CODE** : FID 26402  
**SUBJECT TITLE** : OPERATION AND SAFETY MANAGEMENT  
**LEVEL** : DIPLOMA  
**TIME / DURATION** : 4.00 pm – 6.00 pm  
( 2 HOURS )  
**DATE** : 26 APRIL 2010

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**INSTRUCTIONS TO CANDIDATES**

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1. Please read the instructions given in the question paper CAREFULLY.
  2. This question paper is printed on both sides of the paper.
  3. Please write your answers on the answer booklet provided.
  4. Answer should be written in blue or black ink except for sketching, graphic and illustration.
  5. This question paper consists of TWO (2) sections. Section A and B. Answer all question in Section A. For Section B, answer two (2) questions only.
  6. Answer all questions in English.
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THERE ARE 5 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

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## SECTION A (Total: 60 marks)

INSTRUCTION: Answer ALL questions.

Please use the answer booklet provided.

## Question 1

- a. Why is the term *operations* used for manufacturing?

(5 marks)

- b. What is the difference between production management and operations management?

(5 marks)

## Question 2

- a. Describe transformational model

(4 marks)

- b. What is the importance of the term 'feed back' in transformational model.

(4 marks)

## Question 3

- a. Define "inventory" in Manufacturing Industry

(4 marks)

- b. Describe three (3) functions of inventory in manufacturing

(6 marks)

## Question 4

- a. Define productivity

(4 marks)

- b. Describe the factor that increases the productivity.

(8 marks)

Question 5

Describe briefly and give example of the terms below:

- a. Risk
- b. Hazard
- c. Unsafe Act
- d. Unsafe Condition

(10 marks)

Question 6

- a. Define accident

(2 marks)

- b. List four (4) reasons for the importance of accident investigation

(8 marks)

SECTION B (Total: 40 marks)

INSTRUCTION: Answer two (2) questions only.

Please use the answer booklet provided.

Question 7

Productivity can be measured in a variety of ways, such as by labor, capital, energy, material usage and so on. At Modern Lumber, Inc, Art Binley, president and producer of apple crates sold to growers, has been able .with current equipment, to produce 200 boxes per 100 logs. He currently purchase 100 logs per day, and each log requires 3 labor- hour to process. He believes that he can hire a professional buyer who can buy a better-quality logs at the same cost. If this is the case, he can increase his production to 240 boxes per 100 logs. His labor-hours will increase by 8 hours per day.

What will be the impact on productivity (measured in boxes per labor-hours) if the buyer is hired?

(20 marks)

Question 8

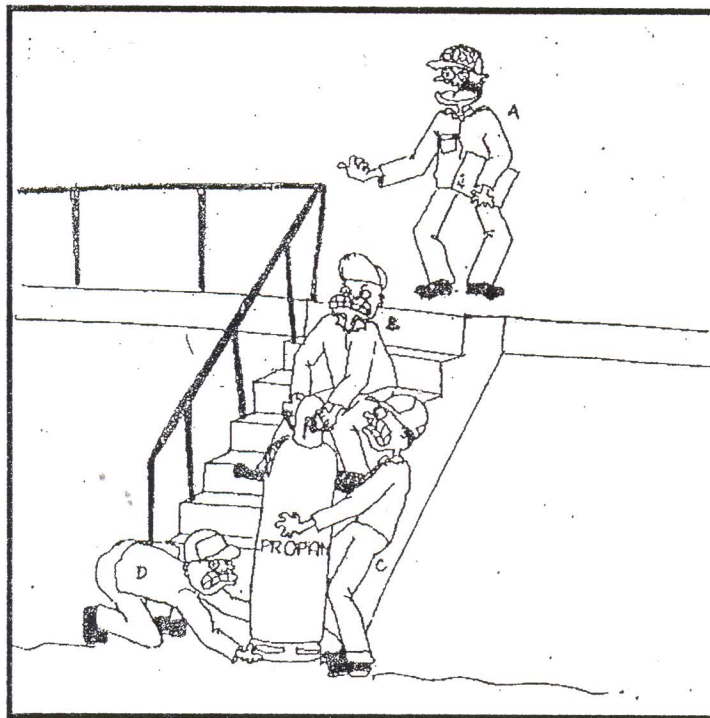


Figure 1: Propane Cylinder



Kukus Piping Engineering Sdn.Bhd is a company produces piping for Oil & Gas Industry. Currently they are expand the operation space and need to move few equipment to new place. **Figure 1** show the Mr.A (supervisor) give instruction to their worker to move the Propane Cylinder to new place.

- a. You as Safety Officer in this company list the hazard in this situation  
(4 marks)
- b. List the correct procedure for doing this task?  
(6 marks)
- c. As worker, what is your action if the employee not provide Personal Protective Equipment (PPE)  
(4 marks)
- d. In your opinion, what are the occurrence will happen to the worker in aspect health-of the worker?  
(6 marks)

#### Question 9

*"Case closed after 15 years, HAZMAT units was formed after fire explosion at factory in Sungai Buloh"*. Sunday Star, 6 August 2006

15 years later, the case was closed for victims of the Bright Sparkler fireworks factory explosion in Sungai Buloh, Selangor. Many had forgotten the tragic event by now that killed 22 people and injured 103 on may 7, 1991 in the fire explosion. Finally the Government has made a payout of RM954,685 by Director of Selangor Land and Mines Department, the Petaling District Council and the Government of Malaysia being the defendants respectively for general and special damages and interest. The 119 people also received a lump sum of RM30,000 from Chin Kong Hin, the Director at Bright Sparklers Sdn. Bhd, who went out of business after the tragedy for the loss of loved ones, injuries and damages to their properties.

Liow Siew Hing, 69 was among the parents who lost a son in the tragedy. His son was one at the early rescues at the site when the first blast took place at 3.00 pm when his son and twelve friend were at a coffee shop near the factory. The entire group went to the place to help in the rescue operation but only four came out alive; K. Vesran, 43 lost his sister in the

tragedy and his mother is paralyzed now. Akmal , Singh, another victim suffered epilepsy and lost his right hand movement as he was hit by flying debris on his head. He recalled 'neighboring houses in Kampung Sungai Buloh were on fire, and about 40% of the factory was destroyed and fireworks were exploding all over the place'

The Fire and Rescue Department has then set up 11 HAZMAT (Hazardous Material Team) for search and rescue in fires involving chemicals. 'The special team is unlike the ordinary unit that puts out ordinary fire, they are highly specialized in incident involving chemicals', said the Deputy Directory General, Fire and Rescue Department.

- a. Describe how fire explosion occurs

(4 marks)

- b. State five (5) effects of accidents based on this case and provide evidences

(4 marks)

- c. Explain how you would extinguish this fire and justify why

(4 marks)

- d. Elaborate what type (s) of hazards are present in this factory and justify your answer

(4 marks)

- e. You are a storekeeper in charge of a chemical store. Describe how you would charge this chemical store in non-compliance to related OSH regulations.

(4 marks)

**END OF QUESTIONS**